tions. There is a great difference between saying that we will not believe conclusions of botany, geology, or history, because they have been obtained by means of a scientific method, and saying that they cannot be trusted because the method of obtaining them has not been scientific. And further, it is a still greater difference to say that we will not believe them because no method whatever has been employed. If a writer on algebra were to state as an axiom, *first*, that equals added to equals produce equals, and, *second*, that this was not true in all cases, — or if a geometrician were to state as his fundamental belief, that a whole is greater than a part, and, moreover, that a part is sometimes greater than a whole, — we should not quarrel with algebra or geometry: it would be sufficient to deny that a process based upon a contradiction can have any scientific method about it. And so in the case of historians, we do not find fault with the science of History, — there is nothing more blameless, nothing more beneficial, in the world. What we say is, that Dr. Draper's book has no connection with the science. It is one thing to quarrel with History, quite another to quarrel with Dr. Draper's History. His book furnishes a striking instance of a philosophy which may be proved fallacious without attending at all to the results which are apparently reached through it, by showing that the abstract reasoning which lies at the bottom has been carelessly done. Dr. Draper's want of method would be fatal, even if his conclusions were undeniably true, for in that case we could only wonder at the extraordinary powers of a mind capable of answering correctly the riddles of human life by a process ordinarily applied to conundrums.

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9. — *The Public Debt of the United States; its Organization; its Liquidation; Administration of the Treasury; the Financial System.* By J. S. Gibbons, Author of "The Banks of New York and the Clearing-House." New York: Charles Scribner & Co. 1867. 12mo. pp. xii., 276.

This, as appears by the title, is Mr. Gibbons's second essay at book-making. His former volume was written after the crisis of 1857, and it was a valuable and readable one. It gave the fullest account which has appeared in print of the organization and management of the banks of the city of New York, with minute details as to their daily routine of business, their book-keeping, and their internal economy generally. It also gave a very accurate and intelligible description of the clearing-house, — that great labor-saving machine, which has wrought as remarkable an economy in effecting the daily exchanges, as McCor-

mick's reaper in the gathering of the harvest. The author was thoroughly familiar with his subject, and had an eye for its humorous as well as its graver aspects. The book now before us is more ambitious in its design, and less successful. The history of the public debt is yet to be written. A clear and popular narrative of the finances of the war, beginning with Mr. Cobb's unsuccessful attempt to effect a loan at twelve per cent, in the last days of Mr. Buchanan's administration, and describing, in succession, the first essays of Mr. Chase to fill the empty treasury; the momentous negotiation for one hundred and fifty millions with the associated banks of New York, Philadelphia, and Boston, in the summer and autumn of 1861; the issue and taking of the first popular loan, — the seven-thirties; the suspension of specie payment, and consequent issue of legal-tender notes; the rapid growth of public expenses, and of the machinery of disbursement; the contract system; the creation of the national banks; the popular subscription to the five-twenty loans; the origin and growth of the income-tax, and whole internal-revenue system; the absorption of our bonds in Germany, and the struggle which our credit had to go through in Europe, before it was triumphantly established in the victory of the national arms; — a narrative of these, and many more events of a kindred character, by one who knew the actors and watched the movements of our financial machinery as the war went on, would make a chapter in financial history of unparalleled interest.

Mr. Gibbons has made no attempt at such a narrative. In his chapter on the organization of the debt, he begins with a reprint of the general statement of the indebtedness of the United States, as it appears in the last Report of the Secretary of the Treasury. He has rendered a useful service, however, by dissecting this statement, so as to make it more intelligible to the general reader, and of easier reference to the investor. The table on pages 24 and 25, which distinguishes the old from the new debt, giving the title by which each class is known, the rate of interest, the time when due, and the outstanding amount, will be found very convenient for reference, and it shows how necessary it is to have some thread to guide the uninitiated through our financial labyrinth. The list

"contains nineteen different periods of maturity, and six different rates of interest. Each rate of interest has contingencies within itself, which make the determination of relative value impossible. There are no fewer than twelve different kinds of bonds and notes, carrying six per cent interest. Most of the issues include both registered and coupon bonds. In some there are bonds as low as fifty dollars, of others there are none lower than five hundred dollars, and of others none under a thousand. They are issued under twelve different acts of Congress. Of the five-per-cent loans, there

are five different issues, each with an option appended, and other contingencies of conversion, renewal, &c. Of the seven-thirty notes there are five or six different issues, some convertible at the option of the government, and some at the option of the holder, into various bonds, and some issues are exchangeable for other issues."

But, after all, the investor of money is not exposed to the perplexity of choosing from all this heterogeneous list, since the securities which are currently dealt in, in the market, are few. Mr. Gibbons reduces the number to four, namely, the ten-forties (five per cent), the sixes of 1881 and the five-twenties (six per cent), and the seven-thirties (seven and three tenths per cent). These latter are not bonds, but treasury-notes, a portion of which will mature next year, and be either paid off or converted into six-per-cent bonds.*

We quite agree with Mr. Gibbons, that a thorough reorganization of the debt is necessary; and this nobody better understands than Mr. McCulloch, and during the last year he has done much towards consolidating it. When the whole is funded, it will be for him and his successors to consider how it may be simplified. We know that his first desire has been to get it into bonds, and without, at first, attempting to reduce the interest below six per cent, though accompanied with an option like the five-twenty and ten-forty bonds, which will place it sufficiently in his control to enable him to exercise upon the mass of it any economies, in the rate of interest, which may be open to him. In this connection, we find the following statement in Mr. Gibbons's book, which, in its obvious meaning, is utterly without foundation: —

"It has been openly avowed as the intention of the treasury to refund the loans as they expire, at a lower rate of interest; by this means making the credit worth one sixth less to the holders than it is at the present time, — an expedient of doubtful morality, and partaking, in its nature, of the air of repudiation."

If this means anything, it is that the government will force the holders, at the maturity of the six-per-cent loans, to accept a new loan at five per cent in payment. We have carefully read every paper emanating from the Treasury Department, and deny that there is any

* The debt of Great Britain is much simpler in its elements than ours. Taking the statement of March 31, 1866, the total debt was £773,313,229, of which over £754,000,000 was in three-per-cent annuities. The residue was at two and a half, three and a half, and five per cent. The debt is not in the form of bonds, but is an inscribed debt, of which the amount stands to the credit of the several holders in the books of the Stock Office at the Bank of England. It has no denominations, but may be transferred in sums as small as sixpence. The dividends are payable semiannually, also at the Bank of England, either in January and July, or in April and October.

ground for such an assertion. The government will undoubtedly exercise its right to pay the loans after their maturity, if they can negotiate new ones at a lower rate of interest; and they will probably give the holder the option to take his money or the new bond, precisely as they are now doing with the maturing seven-thirty notes; with this important difference, however, that the *bonds* of the government are payable in gold, while the treasury-notes are redeemable in legal-tender money.

The option of the first issue of five-twenties matured on the 30th of April last. This is the loan of 1862, of which the larger portion is now held in Europe. It would seem probable, therefore, that the first effort to economize interest would be made by negotiating a new European loan at five per cent, to take the place of it. The amount is five hundred millions, which is quite enough for a first experiment. The Secretary of the Treasury tried to get authority from the last Congress to make such a negotiation, asking leave to make the new bonds payable, principal and interest, abroad, and in the denominations of European currency. There has been a very unreasonable prejudice against foreign loans, and the authority has not yet been granted; but it has not been refused, and it is to be hoped that, with a better understanding of the subject, next winter, the desired authority will be given. We can conceive no possible objection to it, while the advantages are obvious. It is not a question of going abroad to borrow money, for practically we have done that already. Every bond sent by our citizens abroad left room for placing a new one at home, and thus our loans have been the more easily taken. Having Europe already as a creditor, how can we make the best bargain with her for continuing the loan? Germany bought our bonds when they were to us at a ruinous figure, because at that time both our credit and our national unity were in dispute. But we could not help ourselves; we were in the hands of the Jews, and we paid Jews' interest. At the maturity of the debt, (or of the option to pay it, which is the same for our purposes,) we have a right to command better terms. The sole difference to our government between paying the bonds and their interest abroad or at home, is the cost of remitting funds; and the advantages to the foreign holder of having them paid in his own country are so much greater than this, that he may be expected to pay liberally for it. Neither is there any loss of dignity in going to one's creditor, instead of waiting for him to come to us. Every borrowing power in Europe does it. European capitalists are notional in the matter of their investments. Witness the preference which they show for the five-twenties of 1862 over the later issues, which are intrinsically better, because longer; yet the difference in the market price is now more than three per cent.

The sign of the pound sterling is a favorite, not only with John Bull, but with the Jew bankers and the solid people generally in Europe. Russia and Austria have had to adopt it in place of roubles and florins, and there is no good reason why the United States should not do the same. In short, if we wish to borrow money in Europe on the best terms, let us conform to European usages in all matters of detail. Let us convert dollars into pounds, shillings, and pence ; or, if the lenders wish it, into thalers, florins, or francs; and let us, like Russia and Austria, pay the interest on each bond, at several points, in the denomination of the country. It costs little, and it may gain much. The promise is still the Federal promise, though the money in which it is expressed is not Federal money.

Mr. Gibbons's chapter upon the liquidation of the debt is probably that on which the author has bestowed most thought, and on which he would rest his highest claim to public attention. He is not in favor of a rapid liquidation, and he says justly, that "nothing is gained materially, and much lost, if a debt be cancelled by so straining the general economy [productive power of the nation] as to impair its efficiency ; for that is not to remove, but only to change the character of the burden."

His practical scheme is to pay the debt in one hundred and forty-two years, by the following process. He adopts the sum of ten millions (besides the interest of the debt) as an annual constant of payment, and to this he adds the interest annually saved by the reduction of so much of the principal; so that the appropriation on account of the public debt shall remain the same for a considerable number of years. Of course, the frequency with which this appropriation shall be reduced is arbitrary; but Mr. Gibbons divides the time of liquidation into periods of from seventeen to twenty years, the last period being, however, thirty-one years, during which the annual appropriation is to be but fifty millions. His theory is to "reduce the debt by the most gradual scale that will carry forward the liquidation, while pressing as lightly as possible on the productive energies of the country."

Mr. McCulloch, in his Report for 1865, proposed to pay the debt by a yearly appropriation of two hundred millions. With this sum it could be liquidated in about thirty years, the time being a little longer or shorter, according to the rate of interest. Mr. Gibbons objects to this plan, because "it ignores all natural laws of commerce; it repudiates the idea that there are any laws of production which are entitled to respect, and the violation of which will lessen the product."

Except that the annual appropriation is larger, — for Mr. Gibbons begins with one hundred and seventy-two millions, — and that the constant of payment is continued until the whole debt is liquidated, we do

not see that the Secretary's scheme differs from the author's; and so far as respects the laws of production, Mr. Gibbons seems to us the party in error, for he begins with a high scale of taxation when the country is exhausted and the burden of taxes heavy, and reduces it periodically as the strength of the country is augmented by the increase of population and of taxable resources. The Secretary, on the contrary, goes so far in the opposite direction as to keep the appropriation uniform, though the burden of it is constantly lessening under natural laws. But might not the exact opposite of Mr. Gibbons's scheme be adopted, in better harmony with these natural laws? By beginning with a smaller appropriation, and constantly increasing it as taxation was spread over a broader surface of property and population, the burden of taxes might remain the same, while the product of them would rapidly increase. Regarding the debt as a national evil to be got rid of as rapidly as is consistent with our material and social prosperity, we should be unwilling to see the burden so lightened that the people should become unconscious of it.

Mr. Gibbons's premise is a sound one, that the weight of taxation must not be such as to repress production, or degrade any portion of the people. But his conclusion does not necessarily flow from it, that ten millions a year is the highest sum which can be spared for liquidation of the debt without entailing these results, or that nearly a century and a half is needed to accomplish the end in view. A century and a half is a long period, much longer than the past life of the nation. Who can tell what may happen in that time, — what new vicissitudes the nation may have to pass through, — what new occasions for great expenditure and for the accumulation of new public debts may arise? Is it not safer to meet those vicissitudes with a clear balance-sheet? On this point we may with confidence quote the opinion of Mr. Gladstone, the foremost financial statesman of the age, who in his budget speech of last year commended in the highest terms the policy upon which this country had already entered, that of rapidly liquidating the public debt. Having stated the amount of the debt and of its annual interest, Mr. Gladstone said: —

"Looking at the vigor and energy of the country which has to bear the burden, I must confess that I think the future is hopeful, as far as finance is concerned, and that that debt will constitute no difficulty to the American people. I am confident that if they show, with respect to their finance, any portion of that extraordinary resolution which, on both sides, they manifested during the war, and of that equally remarkable resolution by which, on the return of peace, they put down their monstrous and gigantic war establishments, I won't say, to use the common expression, that this debt will prove a mere flea-bite; but I say that, within a reasonable time it may be brought

within reasonable limits, and that it may, even within the lifetime of those at present living, be swept from the public accounts. The finance minister of that country stringently urges the policy of reducing the debt; and I am certain that from this side of the water we shall send him a hearty expression of good-will for his success, both on account of an interest in the well-being of a friendly nation, and because it may be that the happy example of America will react beneficially on us."

The plan of a stated appropriation to the debt is subject to this serious objection, that the resources of the nation are not uniform, and a sum may be burdensome in one year which is far within the national ability the next. It is a question dependent on harvests, on public health, on foreign as well as domestic tranquillity, and on the state of industry throughout the world; for such is the solidarity of nations that all extremes in the condition of our people speedily reflect themselves in the condition of all peoples.

The true policy would seem to be to pay as much as we can every year, having a pecuniary regard to the production of the country and the condition of the people. It will be a long time before the produce of taxes can be calculated in this country with the accuracy which is shown in the estimates of an English Chancellor of the Exchequer. Probably such exactness can never be attained here, owing to the extent of the country, and the disturbing influences which are constantly likely to arise. The amount which may be applied to the debt cannot therefore be a constant sum, unless a wide margin is allowed in the estimates. The great danger which grows out of such margins is that of extravagance. If it is even hinted that there is likely to be a surplus, all sorts of schemes instantly spring up in Congress to absorb it. But there is no help for this, except to cultivate more rigid ideas of economy in the use of public money, both among the people and their representatives. The tax-payers hold the remedies in their own hands, and they must learn how to use them.

There is much in Mr. Gibbons's chapter on the administration of the treasury from which we dissent, but we have not space to enter here upon the discussion of its topics. Like most New York bankers, he holds the comfortable conceit, that all the financial measures of the war, except such as were initiated in Wall Street, were criminal blunders. Specie payments need not have been suspended, nor legal-tender notes issued; the currency is not redundant, and the evils now existing in trade are not the results of inflation; the Independent Treasury system is at the bottom of all the heresies governing our finance, and the New York Clearing-House, as the consummation of the highest wisdom, is all that has saved the country from its baleful

influence. These are some of the propositions which Mr. Gibbons seeks to establish, and not always, as we think, successfully.

10.— *The Financial Economy of the United States illustrated, and some of the Causes that retard the Progress of California demonstrated.* By John Alexander Ferris, A. M. San Francisco: A. Roman & Son. 1867.

The price of gold is fixed. The United States government ordains that $25\frac{8}{10}$ grains, of standard fineness, shall be called one dollar; and as the value of all commodities is measured by it, though they may rise and fall in price, gold, *while used as currency*, cannot do so, because it is price itself.

This fact, generally overlooked, is an important one to those engaged in the production of gold, since the more the quantity of gold is increased in proportion to the demand for it, the less will be its value, that is, the less of all other commodities will it command in exchange. The miner produces gold, not that he may eat, drink, or wear it, but that he may exchange his product for others useful to him; therefore it is of the first importance to him that the price of all articles of commerce should be as low as possible; and yet, if, by increasing the quantity of gold, he has lessened its value, he has no just occasion to find fault, since this comes by the operation of the natural laws of value, and cannot be helped. If in addition to this, however, any measure is adopted by government which depreciates the value of his commodity by raising the price of all others, then he has sufficient cause for complaint. Governments may do this.

The principal demand for gold is for use as currency. If the issue of any other article as currency, and as a substitute for gold, is legally authorized, in so far the demand for gold must be diminished. As the demand for gold is thus lessened, its value (not its price) will fall. In other words, as prices rise, the power of gold to command commodities will be reduced. This is strikingly illustrated at the present moment, when we have a paper circulation of about seven hundred millions, while before the legal-tender act we had at the highest point but a trifle over two hundred millions. Prices have advanced some one hundred per cent, while gold, no longer currency, is now sold, as an article of merchandise, at thirty-five to forty per cent premium, and was at one time as high as one hundred and eighty-five per cent advance over paper.

If the principle we have laid down is correct, must it not always be